CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

GILES S. PORTER, M.D., Director

Weekly



Bulletin

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GUY P. JONES

The Killing Diseases of Childhood

The Bureau of Epidemiology of the California State Department of Public Health has compiled a tabulation of cases and deaths from communicable diseases in California during the past five years, according to age groups. The data are valuable because they indicate the present trend of devastation due to communicable diseases and provide an index which may be useful to health officers, physicians and individuals who are directing intensive efforts toward the prevention of illness and deaths among children. The trend of communicable discases during the five years 1928–1932 will be discussed in each group that is involved in the study.

Under One Year

During the five-year period, 1928–1932, inclusive, 10,698 cases of communicable diseases and 2479 deaths from such diseases were reported among children under one year of age in California. The most prevalent disease among such children and the disease having greatest killing power was whooping cough. Forty-two and one-half per cent of all cases of communicable diseases in infants and 28.28 per cent of all deaths among such infants was due to whooping cough. During this period, 4546 cases of whooping cough in infants, with 701 deaths, were reported.

Measles was the next most prevalent disease

among infants. There were 1941 reported cases (18.14 per cent) with 101 deaths (4.07 per cent).

Chickenpox was next in prevalence, 1873 cases (17.50 per cent) having been reported, but for this disease there is no mortality rate. Five hundred forty-one deaths (almost 22 per cent of all infant deaths during the five-year period) were reported as due to influenza. There is a possibility that some of such deaths were due to other causes.

Among infants, during the five-year period, 296 cases of tuberculosis in all forms were reported, which represents 2.77 per cent of all communicable disease cases in infants reported during the period. On the other hand, there were 392 deaths from tuberculosis in infants registered, which represents 15.81 per cent of total deaths from communicable diseases in this group. There were 443 cases of venereal diseases in infants reported (4.14 per cent) and 286 deaths from venereal diseases were registered (11.54 per cent of the total). During this five-year period, there were 270 cases of diphtheria reported in infants, with 56 deaths.

It would appear, then, that whooping cough is of first importance as a killer of children under one year of age in California. If contact with active cases could be prevented this record might be made very much better. The responsibility rests largely upon parents. The health officer's most important duty lies in the instruction of parents in the dangers

of this disease and the necessity for providing effective safeguards against its contraction.

Together, measles and whooping cough constitute more than 60 per cent of all cases of communicable diseases reported in infants and together they are responsible for almost one-third of all deaths that occur in this age group. The tabulation of morbidity and mortality for children under one year of age follows:

Communicable Diseases and Deaths in Children Under One Year, California, 1928-1932.

	Cases		De	Deaths	
Disease	No.	Per cent	No. 1	Per cent	
Measles	1,941	18.14	101	4.07	
Chickenpox	1,873	17.51			
Mumps	138	1.29			
Whooping cough	4,546	42.49	701	28.28	
Scarlet fever	216	2.02	8	.32	
Diphtheria	270	2.52	56	2.26	
German measles	300	2.80			
Tuberculosis (all forms)	296	2.77	392	15.81	
Smallpox	96	.90	3	.12	
Venereal diseases	443	4.14	286	11.54	
Poliomyelitis	86	.80	19	.77	
Typhoid fever	10	.09	7	.28	
Meningitis (epidemic)	109	1.02	81	3.27	
Erysipelas	226	2.11			
Dysentery (bacillary)	112	1.05	109	4.40	
Tetanus	17	.16			
Malaria	7	.07	4	.16	
Encephalitis (epidemic)	5	.05	4	.16	
Undulant fever					
Other epidemic diseases	7	.07	167	6.74	
	10,698	100.00	2,479		

One to Four Years

Among children from one to four years of age, tuberculosis was the chief cause of death, almost one-third of all deaths in this age group having been due to this disease. There were 1026 deaths from tuberculosis among these children out of 1397 cases reported. The cases represented but 1.92 per cent of the total reported, while the deaths represented 33.01 per cent of total deaths that occurred in this group. Next to tuberculosis, diphtheria took the greatest number of lives, 415 such deaths (13.35 per cent) having occurred out of 3619 cases reported. Diphtheria cases, however, represent less than 5 per cent of the total of all cases of epidemic diseases reported in this age group. Influenza, with 397 deaths (12.77 per cent), was next in importance as a killer of children from one to four years of age. As in the infant group, there may be a question as to the exact cause of death under this title. Next to diphtheria, whooping cough claimed more lives of children in this group. There were 384 deaths out of 19,315 cases reported (more than 25 per cent of the total cases reported). It is obvious that whooping cough is important, too, as a slayer of children from one to four years of age. More than 9 per cent

of all deaths in this age group were due to measles and more than 25 per cent of all cases reported were of this disease.

In children from one to four years of age, it is obvious that tuberculosis is most destructive. Diphtheria is important as a direct cause of death, but measles and whooping cough in this age group constituted 52 per cent of all cases of communicable disease and, together, they claimed almost 20 per cent of deaths from communicable diseases.

Venereal diseases claimed few lives in this age group and while there were nearly 100 deaths from epidemic poliomyelitis (3.15 per cent of the total) this disease constituted less than 1 per cent of the total morbidity. Measles and whooping cough as producers of after effects that may be highly injurious in later life must not be lost sight of in weighing the damage of communicable diseases among children from one to four years of age. The tabulation of morbidity and mortality for children from one to four years of age during this five-year period follows:

Communicable Diseases and Deaths in Children One to Four Years of Age, California 1928-1932.

	Cases		Deaths	
Disease	No.	Per cent	No. 1	Per cent
Measles	18,411	25.35	282	9.07
Chickenpox		21.25		
Mumps		6.20	- 1	
Whooping cough	19,315	26.60	384	12.36
Scarlet fever	5,966	8.22	86	2.77
Diphtheria	3,619	4.98	415	13.35
German measles	1,096	1.51		
Tuberculosis (all forms)	1,397	1.92	1,026	33.01
Smallpox	563	.78	3	.10
Venereal diseases	576	.79	34	1.09
Poliomyelitis	672	.92	98	3.15
Typhoid fever	179	.25	15	.48
Meningitis (epidemic)	278	.38	136	4.38
Erysipelas	219	.30		
Dysentery (bacillary)	279	.38	105	3.38
Tetanus	36	.05		
Malaria	18	.03	3	.10
Encephalitis (epidemic)		.04	29	.93
Undulant fever	11	.02		
Other epidemic diseases	24	.03	95	3.06
	72,624	100.00	3,108	

Five to Fourteen Years

In this age group the greatest numbers of cases of communicable disease were reported. During the five years covered by this report, 268,029 such cases were reported, as compared with 72,624 cases in the one to four years age group, and 10,698 in the under one year age group. In this older group, tuberculosis again appears as the chief cause of death, more than 40 per cent of all deaths having been due to this disease. Diphtheria was next in importance as a death factor, 16.2 per cent of all deaths having been due to this disease.

Meningitis is more destructive in this age group than in the younger groups. There were 190 deaths (7.11 per cent) from this cause out of 410 cases reported.

It is interesting to note that mumps was conspicuously present in the 5 to 14 year age group. There were 46,660 cases (17.41 per cent) of this disease reported, but mumps is not a factor in mortality. In the lower age groups mumps was inconspicuous. Chickenpox, too, was more prevalent in this age group, 68,220 cases (25.45 per cent of the total) having been reported. More than 26 per cent of all communicable diseases in the 5 to 14 year age group constituted measles cases, of which 70,655 were reported. As a factor in mortality, however, measles is less conspicuous in this age group. Epidemic poliomyelitis was responsible for the deaths of 4.45 per cent of children in this group and scarlet fever was responsible for 5.16 per cent of such deaths. On the other hand, more than 10 per cent of all cases of communicable disease reported in this group was scarlet fever cases, of which 27,480 cases were reported.

Communicable Diseases and Deaths in Children Five to Fourteen Years of Age, California, 1928-1932.

	Cases		Deaths	
Disease	No.	Per cent	No. I	er cent
Measles	70,655	26.36	102	3.82
Chickenpox	68,220	25.45		
Mumps		17.41		
Whooping cough		9.45	49	1.83
Scarlet fever		10.25	138	5.16
Diphtheria		3.22	433	16.20
German measles		3.02		
Tuberculosis (all forms)	3,942	1.47	1,082	40.48
Smallpox			2	.07
Venereal diseases	2,114	.79	28	1.05
Poliomyelitis		.52	119	4.45
Typhoid fever		.40	86	3.22
Meningitis (epidemic)		.15	190	7.11
Erysipelas		.08		
Dysentery (bacillary)		.06	22	.82
Tetanus		.06		
Malaria		.02	7	.26
Encephalitis (epidemic)			17	.64
Undulant fever		.01		
Other epidemic diseases			173	6.47
	268,029	100.00	2,673	

Summary

During the five year period 1928–1932 in California, 10,698 communicable diseases were reported in children under one year of age. There were 24,038 deaths from all causes in this age group, 2479 of which were due to epidemic diseases. The percentage of total deaths due to epidemic diseases was therefore 10.31 per cent.

There were 72,624 cases of communicable diseases in children from one to four years of age. The total deaths among children of this age group was 8814,

of which 3108 were due to epidemic diseases. The percentage of total deaths due to epidemic diseases in this age group was 35.26 per cent.

Among children from 5 to 14 years of age during this period, 268,029 cases of communicable disease were reported. In this age group there were 9173 deaths from all causes, 2673 of which were due to epidemic diseases. The percentage of total deaths due to such causes was 29.14 per cent. The greatest risk to life from epidemic diseases occurred in the one to four year group, followed closely by the 5 to 14 year group. The importance of whooping cough, tuberculosis and venereal disease in the production of infant deaths is most conspicuous.

The importance of tuberculosis as a cause of death in the one to four year age group, the wide prevalence of both measles and whooping cough, and the increasing importance of poliomyelitis and meningitis are outstanding factors in the one to four year age group.

In the 5 to 14 year age group, tuberculosis as a cause of death is increasingly important. Diphtheria, too, caused a higher proportion of deaths in this older group than in the younger groups. Epidemic meningitis and epidemic poliomyelitis also took a heavy toll among these older children. The wide prevalence of measles and whooping cough in this group must not be overlooked and due consideration must be given to the role that these diseases play in the development of complications and disability in later years. It is interesting to note that 3289 cases of smallpox were reported in this group of older children. Since this disease is so readily preventable, it is unfortunate that so many cases should occur. The intensive attack that has been directed against diphtheria is reflected in the favorable results shown in the morbidity and mortality records for this disease. Tuberculosis, whooping cough and diphtheria may be credited with destroying the greatest number of these young lives and measles and whooping cough are unquestionably factors of great importance in the development of tuberculosis in the decade which follows.

These tables deserve careful study by all individuals who are interested in child hygiene and the careful application of the facts indicated should result in the prevention of many cases and deaths from these epidemic diseases.

It's good to have money and the things that money can buy; but it's good, too, to check up once in a while and make sure you haven't lost the things that money can't buy.—George Horace Lorimer.

MINNESOTA BARS PARRAKEETS

The Minnesota State Board of Health, at a special meeting, has resolved to prohibit the shipment of parrakeets into that State "until such time as it can be demonstrated that the aviaries from which parrakeets are shipped are free from infection."

Following is the text of the resolution:

"WHEREAS, Cases of psittacosis are appearing in States due to the shipment of parrakeets from infected aviaries in California, and

WHEREAS, It is practically impossible to exclude carriers of this infection coming from infected areas, and

WHEREAS, Reservoirs of infection are known to exist in California, and

WHEREAS, Infected birds are continually coming from Cali-

fornia and foreign ports; therefore, be it Resolved, That the State Board of Health of Minnesota prohibit the shipment of parrakeets into Minnesota until such time as it can be demonstrated that the aviaries from which parra-

keets are shipped are free from infection.

"A child needs to accumulate great reserves of nervous and physical strength in order that he may meet adequately the competition and speed, the noise and bright lights, the rapid travel and transportation, the necessity for instantaneous decisions which such inventions as the telephone make possible, the unpredictable demands for dealing with hitherto unknown commercial, political and social possibilities which airplanes and airways will open."—Ray Lyman Wilbur, M.D.

MORBIDITY *

Diphtheria

33 cases of diphtheria have been reported, as follows: Kings County 1, Los Angeles County 3, Los Angeles 23, Santa Monica 1, Pacific Grove 1, San Bernardino 2, San Diego 1, San Francisco 1.

Chickenpox

457 cases of chickenpox have been reported. Those communities reporting 10 or more cases are as follows: Berkeley 14, Oakland 40, Los Angeles County 21, Glendale 14, Los Angeles 46, Pasadena 13, Orange County 18, Tustin 11, Sacramento 26, San Diego 18, San Francisco 37, San Joaquin County 28, Stockton 24, Santa Clara 11.

Measles

274 cases of measles have been reported. Those communities reporting 10 or more cases are as follows: Oakland 80, Chula Vista 32, San Diego 128.

Scarlet Fever

215 cases of scarlet fever have been reported. Those communities reporting 10 or more cases are

* From reports received on December 18th, 19th and 20th for week ending December 16th.

as follows: Fresno County 10, Los Angeles County 30, Los Angeles 58.

Whooping Cough

284 cases of whooping cough have been reported. Those communities reporting 10 or more cases are as follows: Oakland 51, Los Angeles County 11, Los Angeles 39, Redlands 13, San Francisco 31, Ventura County 11.

Smallpox

8 cases of smallpox have been reported, as follows: Glendale 2, Fullerton 6.

Typhoid Fever

37 cases of typhoid fever have been reported, as follows: Westmoreland 1, Alhambra 1, Los Angeles 6, Monrovia 1, Pasadena 1, Torrance 4, Riverside County 2, San Bernardino County 1, Ontario 1, San Diego 10, San Francisco 1, Santa Barbara 7, California 1.**

Meningitis (Epidemic)

3 cases of epidemic meningitis have been reported, as follows: Oakland 1, Los Angeles 2.

Poliomyelitis

6 cases of poliomyelitis have been reported; as follows: Bakersfield 1, Long Beach 1, Los Angeles 2, South Gate 1, Ontario 1.

Encephalitis (Epidemic)

One case of epidemic encephalitis from Oakland has been reported.

Food Poisoning

14 cases of food poisoning have been reported, as follows: Los Angeles 5, San Joaquin County 9.

Undulant Fever

3 cases of undulant fever have been reported, as follows: Riverside County 1, Redlands 1, San Francisco 1.

Actinomycosis

One case of actinomycosis from Santa Ana has been reported.

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^{**}Cases charged to "California" represent patients ill before entering the State or those who contracted their illness traveling about the State throughout the incubation period of the disease. These cases are not chargeable to any one locality.